

10/574045

SEQUENCE LISTING

<110> CHUGAI SEIYAKU KABUSHIKI KAISHA

<120> PROTEIN EXPRESSED IN NK CELL

<130> C1-A0308P

<150> JP 2003-338331

<151> 2003-09-29

<160> 53

<170> PatentIn version 3.1

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Met Leu Pro Ser Leu Val Pro Cys Val

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Gly Lys Thr Val Trp Leu Tyr Leu Gin Ala Trp Pro Asn Pro Val Phe

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Lys Glu Asn Gin Thr Leu Ser Met Gly Ala Ala Thr Val Gin Ser Arg			
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Gly Gin Tyr Ser Cys Ser Gly Gin Val Met Tyr Ile Pro Gin Thr Phe			
75	80	85	
aca caa act tca gag act gcc atg gtt caa gtc caa gag ctg ttt cca			401
Thr Gin Thr Ser Glu Thr Ala Met Val Gin Val Gin Glu Leu Phe Pro			
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cct cct gtg ctg agt gcc atc ccc tct cct gag ccc cga gag ggt agc			449
Pro Pro Val Leu Ser Ala Ile Pro Ser Pro Glu Pro Arg Glu Gly Ser			
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ctg gtg acc ctg aga tgt cag aca aag ctg cac ccc ctg agg tca gcc			497
Leu Val Thr Leu Arg Cys Gin Thr Lys Leu His Pro Leu Arg Ser Ala			
125	130	135	
ttg agg ctc ctt ttc tcc ttc cac aag gac ggc cac acc ttg cag gac			545
Leu Arg Leu Leu Phe Ser Phe His Lys Asp Gly His Thr Leu Gin Asp			
140	145	150	
agg ggc cct cac cca gaa ctc tgc atc ccg gga gcc aag gag gga gac			593
Arg Gly Pro His Pro Glu Leu Cys Ile Pro Gly Ala Lys Glu Gly Asp			
155	160	165	

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Ser	Gly	Leu	Tyr	Trp	Cys	Glu	Val	Ala	Pro	Glu	Gly	Gly	Gln	Val	Gin		
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aag	cag	agc	ccc	cag	ctg	gag	gtc	aga	gtg	cag	gct	cct	gta	tcc	cgt		689
Lys	Gln	Ser	Pro	Gln	Leu	Glu	Val	Arg	Val	Gln	Ala	Pro	Val	Ser	Arg		
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cct	gtg	ctc	act	ctg	cac	cac	ggg	cct	gct	gac	cct	gct	gtg	ggg	gac		737
Pro	Val	Leu	Thr	Leu	His	His	Gly	Pro	Ala	Asp	Pro	Ala	Val	Gly	Asp		
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atg	gtg	cag	ctc	ctc	tgt	gag	gca	cag	agg	ggc	tcc	cct	ccg	atc	ctg		785
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tat	tcc	ttc	tac	ctt	gat	gag	aag	att	gtg	ggg	aac	cac	tca	gct	ccc		833
Tyr	Ser	Phe	Tyr	Leu	Asp	Glu	Lys	Ile	Val	Gly	Asn	Ser	His	Ser	Ala	Pro	
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Cys	Gly	Gly	Thr	Thr	Ser	Leu	Leu	Phe	Pro	Val	Lys	Ser	Glu	Gln	Asp		
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Ser	Glu	Pro	Lys	Lys	Leu	Ser	Leu	Lys	Gly	Ser	Gln	Val	Leu	Phe	Thr		
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ccc	gcc	agc	aac	tgg	ctg	gtt	cct	tgg	ctt	cct	gcg	agc	ctg	ctt	ggc		1025
Pro	Ala	Ser	Asn	Trp	Leu	Val	Pro	Trp	Leu	Pro	Ala	Ser	Leu	Leu	Gly		
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Lys Ala Gly Pro Leu Pro Ser Gln Ile Pro Pro Thr Ala Pro Gly Gly		
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Cys Ala Glu Val Arg Cys Leu Gln Pro Ser Glu Val Ser Ser Thr Glu		
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Val Asn Met Arg Ser Arg Thr Leu Gln Glu Pro Leu Ser Asp Cys Glu		
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<213> Homo sapiens

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 35 40 45

Arg Asp Gly Lys Phe Leu His Phe Ser Lys Glu Asn Gln Thr Leu Ser
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Met Gly Ala Ala Thr Val Gln Ser Arg Gly Gln Tyr Ser Cys Ser Gly
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Gln Val Met Tyr Ile Pro Gln Thr Phe Thr Gln Thr Ser Glu Thr Ala
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Met Val Gln Val Gln Glu Leu Phe Pro Pro Pro Val Leu Ser Ala Ile
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Pro Ser Pro Glu Pro Arg Glu Gly Ser Leu Val Thr Leu Arg Cys Gln
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Thr Lys Leu His Pro Leu Arg Ser Ala Leu Arg Leu Leu Phe Ser Phe
 130 135 140

His Lys Asp Gly His Thr Leu Gln Asp Arg Gly Pro His Pro Glu Leu
 145 150 155 160

Cys Ile Pro Gly Ala Lys Glu Gly Asp Ser Gly Leu Tyr Trp Cys Glu
165 170 175

Val Ala Pro Glu Gly Gly Gln Val Gln Lys Gln Ser Pro Gln Leu Glu
180 185 190

Val Arg Val Gln Ala Pro Val Ser Arg Pro Val Leu Thr Leu His His
195 200 205

Gly Pro Ala Asp Pro Ala Val Gly Asp Met Val Gln Leu Leu Cys Glu
210 215 220

Ala Gln Arg Gly Ser Pro Pro Ile Leu Tyr Ser Phe Tyr Leu Asp Glu
225 230 235 240

Lys Ile Val Gly Asn His Ser Ala Pro Cys Gly Gly Thr Thr Ser Leu
245 250 255

Leu Phe Pro Val Lys Ser Glu Gln Asp Ala Gly Asn Tyr Ser Cys Glu
260 265 270

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275 280 285

Leu Lys Gly Ser Gln Val Leu Phe Thr Pro Ala Ser Asn Trp Leu Val
290 295 300

Pro Trp Leu Pro Ala Ser Leu Leu Gly Leu Met Val Ile Ala Ala Ala
305 310 315 320

Leu Leu Val Tyr Val Arg Ser Trp Arg Lys Ala Gly Pro Leu Pro Ser
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Gln Ile Pro Pro Thr Ala Pro Gly Gly Glu Gln Cys Pro Leu Tyr Ala
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Asn Val His His Gln Lys Gly Lys Asp Glu Gly Val Val Tyr Ser Val
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Val His Arg Thr Ser Lys Arg Ser Glu Ala Arg Ser Ala Glu Phe Thr
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Val Gly Arg Lys Asp Ser Ser Ile Ile Cys Ala Glu Val Arg Cys Leu
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223

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Met Leu Pro Ser Leu Gly Pro Met Leu
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Trp Leu Tyr Leu Gln Ala Trp Pro Asn Pro Val Phe Glu Gly Asp Ala			
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ctg act ctg cga tgt cag gga tgg aag aat aca cca ctg tct cag gtg			258
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45	50	55	
aag ttc tac aga gat gga aaa ttc ctt cat ttc tct aag gaa aac cag			306
Lys Phe Tyr Arg Asp Gly Lys Phe Leu His Phe Ser Lys Glu Asn Gln			
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75	80	85	
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Cys Ser Gly Gln Val Met Tyr Ile Pro Gln Thr Phe Thr Gln Thr Ser			
90	95	100	105
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Glu Thr Ala Met Val Gln Val Gln Glu Leu Phe Pro Pro Pro Val Leu			
110	115	120	
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Ser Ala Ile Pro Ser Pro Glu Pro Arg Glu Gly Ser Leu Val Thr Leu			
125	130	135	
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Arg Cys Gln Thr Lys Leu His Pro Leu Arg Ser Ala Leu Arg Leu Leu			
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Phe Ser Phe His Lys Asp Gly His Thr Leu Gln Asp Arg Gly Pro His			
155	160	165	

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Pro Glu Leu Cys Ile Pro Gly Ala Lys Glu Gly Asp Ser Gly Leu Tyr			
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Trp Cys Glu Val Ala Pro Glu Gly Gly Gln Val Gln Lys Gln Ser Pro			
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cag ctg gag gtc aga gtg cag gct cct gta tcc cgt cct gtg ctc act			738
Gln Leu Glu Val Arg Val Gln Ala Pro Val Ser Arg Pro Val Leu Thr			
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ctg cac cac ggg cct gct gac ccc gct gtg ggg gac atg gtg cag ctc			786
Leu His His Gly Pro Ala Asp Pro Ala Val Gly Asp Met Val Gln Leu			
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235	240	245	
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250	255	260	265
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Thr Ser Leu Leu Phe Pro Val Lys Ser Glu Gln Asp Ala Gly Asn Tyr			
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Tyr Ser Val Val His Arg Thr Ser Lys Arg Ser Glu Ala Arg Ser Ala		
380	385	390
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Glu Phe Thr Val Gly Arg Lys Asp Ser Ser Ile Ile Cys Ala Glu Val		
395	400	405
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Arg Cys Leu Gln Pro Ser Glu Val Ser Ser Thr Glu Val Asn Met Arg		
410	415	420
425		
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Ser Arg Thr Leu Gln Glu Pro Leu Ser Asp Cys Glu Glu Val Leu Cys		
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gacagtgggg tcctcaactc ttctgtggg tccttcagtg tcccaagccc agcatcacag		1530

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Pro Asn Pro Val Phe Glu Gly Asp Ala Leu Thr Leu Arg Cys Gln Gly

35 40 45

Trp Lys Asn Thr Pro Leu Ser Gln Val Lys Phe Tyr Arg Asp Gly Lys

50 55 60

Phe Leu His Phe Ser Lys Glu Asn Gln Thr Leu Ser Met Gly Ala Ala
 65 70 75 80

Thr Val Gln Ser Arg Gly Gln Tyr Ser Cys Ser Gly Gln Val Met Tyr
 85 90 95

Ile Pro Gln Thr Phe Thr Gln Thr Ser Glu Thr Ala Met Val Gln Val
 100 105 110

Gln Glu Leu Phe Pro Pro Pro Val Leu Ser Ala Ile Pro Ser Pro Glu
 115 120 125

Pro Arg Glu Gly Ser Leu Val Thr Leu Arg Cys Gln Thr Lys Leu His
 130 135 140

Pro Leu Arg Ser Ala Leu Arg Leu Leu Phe Ser Phe His Lys Asp Gly
 145 150 155 160

His Thr Leu Gln Asp Arg Gly Pro His Pro Glu Leu Cys Ile Pro Gly
 165 170 175

Ala Lys Glu Gly Asp Ser Gly Leu Tyr Trp Cys Glu Val Ala Pro Glu
 180 185 190

Gly Gly Gln Val Gln Lys Gln Ser Pro Gln Leu Glu Val Arg Val Gln
 195 200 205

Ala Pro Val Ser Arg Pro Val Leu Thr Leu His His Gly Pro Ala Asp
 210 215 220

Pro Ala Val Gly Asp Met Val Gln Leu Leu Cys Glu Ala Gln Arg Gly
 225 230 235 240

Ser Pro Pro Ile Leu Tyr Ser Phe Tyr Leu Asp Glu Lys Ile Val Gly
 245 250 255

Asn His Ser Ala Pro Cys Gly Gly Thr Thr Ser Leu Leu Phe Pro Val

260	265	270
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Val Ser Arg Glu Arg Ser Glu Pro Lys Lys Leu Ser Leu Lys Gly Ser

290	295	300
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Gln Val Leu Phe Thr Pro Ala Ser Asn Trp Leu Val Pro Trp Leu Pro

305	310	315	320
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Ala Ser Leu Leu Gly Leu Met Val Ile Ala Ala Ala Leu Leu Val Tyr

325	330	335
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Val Arg Ser Trp Arg Lys Ala Gly Pro Leu Pro Ser Gln Ile Pro Pro

340	345	350
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Thr Ala Pro Gly Gly Glu Gln Cys Pro Leu Tyr Ala Asn Val His His

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Gln Lys Gly Lys Asp Glu Gly Val Val Tyr Ser Val Val His Arg Thr

370	375	380
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Ser Lys Arg Ser Glu Ala Arg Ser Ala Glu Phe Thr Val Gly Arg Lys

385	390	395	400
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Asp Ser Ser Ile Ile Cys Ala Glu Val Arg Cys Leu Gln Pro Ser Glu

405	410	415
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Met
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 5 10 15

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Glu Leu Phe Pro Asn Pro Glu Leu Thr Glu Phe Thr Asn Ser Glu Thr
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Ser Gly Leu Tyr Gln Cys Met Val Asp Thr Glu Asp Gly Leu Ile Gln			
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aaa aaa agt ggc tat ctg gat atc cag ttc tgg act cct gta tcc cat			453
Lys Lys Ser Gly Tyr Leu Asp Ile Gln Phe Trp Thr Pro Val Ser His			
100	105	110	
cct gtg ctc act ctg caa cat gaa gcc act aac ctt gct gta gga gac			501
Pro Val Leu Thr Leu Gln His Glu Ala Thr Asn Leu Ala Val Gly Asp			
115	120	125	
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Lys Val Glu Phe Leu Cys Glu Ala His Gln Gly Ser Leu Pro Ile Phe			
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Tyr Ser Phe Tyr Ile Asn Gly Glu Ile Leu Gly Lys Pro Leu Ala Pro			
150	155	160	
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165	170	175	
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Thr Lys Asn Tyr Ser Cys Glu Ala Lys Asn Asn Ile Ser Arg Glu Ile			
180	185	190	
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Ser Glu Leu Lys Lys Phe Pro Leu Val Val Ser Gly Thr Ala Trp Ile			
195	200	205	

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Met Val Ile Ala Ala Val Val Leu Met Tyr Phe Phe Lys Pro Cys Lys			
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Lys His Ala Arg Pro Glu Met Pro Thr Leu Lys Glu Pro Asp Ser Phe			
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Leu Tyr Val Ser Val Asp Asn Arg Arg Tyr Lys			
260	265		
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tccagcac tc agcagtggct ccaagttctc cctgcaggc acccagttcc tagcccgaga	1111		
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 35 40 45

Pro Thr Leu Gln Leu Phe Tyr Thr Phe Tyr Lys Asp Asn His Val Ile
 50 55 60

Gln Asp Arg Ser Pro His Ser Val Phe Ser Ala Glu Ala Lys Glu Glu
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Asn Ser Gly Leu Tyr Gln Cys Met Val Asp Thr Glu Asp Gly Leu Ile
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Gln Lys Lys Ser Gly Tyr Leu Asp Ile Gln Phe Trp Thr Pro Val Ser
 100 105 110

His Pro Val Leu Thr Leu Gln His Glu Ala Thr Asn Leu Ala Val Gly
 115 120 125

Asp Lys Val Glu Phe Leu Cys Glu Ala His Gln Gly Ser Leu Pro Ile
 130 135 140

Phe Tyr Ser Phe Tyr Ile Asn Gly Glu Ile Leu Gly Lys Pro Leu Ala
 145 150 155 160

Pro Ser Gly Arg Ala Ala Ser Leu Leu Ala Ser Val Lys Ala Glu Trp
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Ser Thr Lys Asn Tyr Ser Cys Glu Ala Lys Asn Asn Ile Ser Arg Glu
 180 185 190

Ile Ser Glu Leu Lys Lys Phe Pro Leu Val Val Ser Gly Thr Ala Trp
 195 200 205

Ile Lys Ser Asn Met Leu Thr Ile Trp Leu Pro Ala Ser Leu Leu Gly
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Gly Met Val Ile Ala Ala Val Val Leu Met Tyr Phe Phe Lys Pro Cys
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10/574045

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<110> Matsushima, Kouji
 Hashimoto, Shinichi
 Tsuchiya, Masayuki
 Hirata, Yuichi
 Yoshida, Kenji
 Ojima, Kazuyuki

<120> PROTEIN EXPRESSED IN NK CELL

<130> 14875-157US1

<150> PCT/JP2004/14207

<151> 2004-09-29

<150> JP 2003-338331

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 Met Leu Pro Ser Leu Val Pro Cys Val
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 Gly Lys Thr Val Trp Leu Tyr Leu Gln Ala Trp Pro Asn Pro Val Phe
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 Glu Gly Asp Ala Leu Thr Leu Arg Cys Gln Gly Trp Lys Asn Thr Pro
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ctg tct cag gtg aag ttc tac aga gat gga aaa ttc ctt cat ttc tct 257
 Leu Ser Gln Val Lys Phe Tyr Arg Asp Gly Lys Phe Leu His Phe Ser
 45 50 55

aag gaa aac cag act ctg tcc atg gga gca gca aca gtg cag agc cgt 305
 Lys Glu Asn Gln Thr Leu Ser Met Gly Ala Ala Thr Val Gln Ser Arg
 60 65 70

ggc cag tac agc tgc tct ggg cag gtg atg tat att cca cag aca ttc 353
 Gly Gln Tyr Ser Cys Ser Gly Gln Val Met Tyr Ile Pro Gln Thr Phe

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110 115 120			
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125 130 135			
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140 145 150			
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155 160 165			
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170 175 180 185			
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190 195 200			
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205 210 215			
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220 225 230			
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235 240 245			
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250 255 260 265			
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270 275 280			
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285 290 295			
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300 305 310			

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 Leu Met Val Ile Ala Ala Ala Leu Leu Val Tyr Val Arg Ser Trp Arg
 315 320 325

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 Lys Ala Gly Pro Leu Pro Ser Gln Ile Pro Pro Thr Ala Pro Gly Gly
 330 335 340 345

 gag cag tgc cca cta tat gcc aac gtg cat cac cag aaa ggg aaa gat 1169
 Glu Gln Cys Pro Leu Tyr Ala Asn Val His His Gln Lys Gly Lys Asp
 350 355 360

 gaa ggt gtt gtc tac tct gtg gtg cat aga acc tca aag agg agt gaa 1217
 Glu Gly Val Val Tyr Ser Val Val His Arg Thr Ser Lys Arg Ser Glu
 365 370 375

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 Ala Arg Ser Ala Glu Phe Thr Val Gly Arg Lys Asp Ser Ser Ile Ile
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 Cys Ala Glu Val Arg Cys Leu Gln Pro Ser Glu Val Ser Ser Thr Glu
 395 400 405

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 Val Asn Met Arg Ser Arg Thr Leu Gln Glu Pro Leu Ser Asp Cys Glu
 410 415 420 425

 gag gtt ctc tgc tag tgatgggttt ctccatatcaa cacacgcccc ccccccagtct 1416
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 35 40 45

 Arg Asp Gly Lys Phe Leu His Phe Ser Lys Glu Asn Gln Thr Leu Ser
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 65 70 75 80

Gln Val Met Tyr Ile Pro Gln Thr Phe Thr Gln Thr Ser Glu Thr Ala
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 Met Val Gln Val Gln Glu Leu Phe Pro Pro Pro Val Leu Ser Ala Ile
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 Pro Ser Pro Glu Pro Arg Glu Gly Ser Leu Val Thr Leu Arg Cys Gln
 115 120 125

 Thr Lys Leu His Pro Leu Arg Ser Ala Leu Arg Leu Leu Phe Ser Phe
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 His Lys Asp Gly His Thr Leu Gln Asp Arg Gly Pro His Pro Glu Leu
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 Cys Ile Pro Gly Ala Lys Glu Gly Asp Ser Gly Leu Tyr Trp Cys Glu
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 Val Ala Pro Glu Gly Gly Gln Val Gln Lys Gln Ser Pro Gln Leu Glu
 180 185 190
 Val Arg Val Gln Ala Pro Val Ser Arg Pro Val Leu Thr Leu His His
 195 200 205
 Gly Pro Ala Asp Pro Ala Val Gly Asp Met Val Gln Leu Leu Cys Glu
 210 215 220
 Ala Gln Arg Gly Ser Pro Pro Ile Leu Tyr Ser Phe Tyr Leu Asp Glu
 225 230 235 240
 Lys Ile Val Gly Asn His Ser Ala Pro Cys Gly Gly Thr Thr Ser Leu
 245 250 255
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 260 265 270
 Ala Glu Asn Ser Val Ser Arg Glu Arg Ser Glu Pro Lys Lys Leu Ser
 275 280 285
 Leu Lys Gly Ser Gln Val Leu Phe Thr Pro Ala Ser Asn Trp Leu Val
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 Pro Trp Leu Pro Ala Ser Leu Leu Gly Leu Met Val Ile Ala Ala Ala
 305 310 315 320
 Leu Leu Val Tyr Val Arg Ser Trp Arg Lys Ala Gly Pro Leu Pro Ser
 325 330 335
 Gln Ile Pro Pro Thr Ala Pro Gly Gly Glu Gln Cys Pro Leu Tyr Ala
 340 345 350
 Asn Val His His Gln Lys Gly Lys Asp Glu Gly Val Val Tyr Ser Val
 355 360 365
 Val His Arg Thr Ser Lys Arg Ser Glu Ala Arg Ser Ala Glu Phe Thr
 370 375 380

Val Gly Arg Lys Asp Ser Ser Ile Ile Cys Ala Glu Val Arg Cys Leu
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 Met Leu Pro Ser Leu Gly Pro Met Leu
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ctc tgg acg gct gtg ctg ctc ttt gtt ccc tgt gtt ggg aaa act gtc 162
 Leu Trp Thr Ala Val Leu Leu Phe Val Pro Cys Val Gly Lys Thr Val
 10 15 20 25

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 Trp Leu Tyr Leu Gln Ala Trp Pro Asn Pro Val Phe Glu Gly Asp Ala
 30 35 40

ctg act ctg cga tgt cag gga tgg aag aat aca cca ctg tct cag gtg 258
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 45 50 55

aag ttc tac aga gat gga aaa ttc ctt cat ttc tct aag gaa aac cag 306
 Lys Phe Tyr Arg Asp Gly Lys Phe Leu His Phe Ser Lys Glu Asn Gln
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act ctg tcc atg gga gca gca aca gtg cag agc cgt ggc cag tac agc 354
 Thr Leu Ser Met Gly Ala Ala Thr Val Gln Ser Arg Gly Gln Tyr Ser
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tgc tct ggg cag gtg atg tat att cca cag aca ttc aca caa act tca 402
 Cys Ser Gly Gln Val Met Tyr Ile Pro Gln Thr Phe Thr Gln Thr Ser
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155	160	165	
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170	175	180	185
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205	210	215	
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220	225	230	
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285	290	295	
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300	305	310	
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315	320	325	
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380 385 390	
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395 400 405	
aga tgc ctg cag ccc agt gag gtt tca tcc acg gag gtg aat atg aga Arg Cys Leu Gln Pro Ser Glu Val Ser Ser Thr Glu Val Asn Met Arg	1362
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gtgatgctgg tacaaacaag ctacagcgcc gctagtcata tacaaatata gcacatacaa	1950
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Pro Asn Pro Val Phe Glu Gly Asp Ala Leu Thr Leu Arg Cys Gln Gly	
35 40 45	

Trp Lys Asn Thr Pro Leu Ser Gln Val Lys Phe Tyr Arg Asp Gly Lys
 50 55 60

Phe Leu His Phe Ser Lys Glu Asn Gln Thr Leu Ser Met Gly Ala Ala
 65 70 75 80

Thr Val Gln Ser Arg Gly Gln Tyr Ser Cys Ser Gly Gln Val Met Tyr
 85 90 95

Ile Pro Gln Thr Phe Thr Gln Thr Ser Glu Thr Ala Met Val Gln Val
 100 105 110

Gln Glu Leu Phe Pro Pro Pro Val Leu Ser Ala Ile Pro Ser Pro Glu
 115 120 125

Pro Arg Glu Gly Ser Leu Val Thr Leu Arg Cys Gln Thr Lys Leu His
 130 135 140

Pro Leu Arg Ser Ala Leu Arg Leu Leu Phe Ser Phe His Lys Asp Gly
 145 150 155 160

His Thr Leu Gln Asp Arg Gly Pro His Pro Glu Leu Cys Ile Pro Gly
 165 170 175

Ala Lys Glu Gly Asp Ser Gly Leu Tyr Trp Cys Glu Val Ala Pro Glu
 180 185 190

Gly Gly Gln Val Gln Lys Gln Ser Pro Gln Leu Glu Val Arg Val Gln
 195 200 205

Ala Pro Val Ser Arg Pro Val Leu Thr Leu His His Gly Pro Ala Asp
 210 215 220

Pro Ala Val Gly Asp Met Val Gln Leu Leu Cys Glu Ala Gln Arg Gly
 225 230 235 240

Ser Pro Pro Ile Leu Tyr Ser Phe Tyr Leu Asp Glu Lys Ile Val Gly
 245 250 255

Asn His Ser Ala Pro Cys Gly Gly Thr Thr Ser Leu Leu Phe Pro Val
 260 265 270

Lys Ser Glu Gln Asp Ala Gly Asn Tyr Ser Cys Glu Ala Glu Asn Ser
 275 280 285

Val Ser Arg Glu Arg Ser Glu Pro Lys Lys Leu Ser Leu Lys Gly Ser
 290 295 300

Gln Val Leu Phe Thr Pro Ala Ser Asn Trp Leu Val Pro Trp Leu Pro
 305 310 315 320

Ala Ser Leu Leu Gly Leu Met Val Ile Ala Ala Ala Leu Leu Val Tyr
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Val Arg Ser Trp Arg Lys Ala Gly Pro Leu Pro Ser Gln Ile Pro Pro

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Thr Ala Pro Gly Gly Glu Gln Cys Pro Leu Tyr Ala Asn Val His His		
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Gln Lys Gly Lys Asp Glu Gly Val Val Tyr Ser Val Val His Arg Thr		
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Ser Lys Arg Ser Glu Ala Arg Ser Ala Glu Phe Thr Val Gly Arg Lys		
385	390	395
Asp Ser Ser Ile Ile Cys Ala Glu Val Arg Cys Leu Gln Pro Ser Glu		
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115 120 125	
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130 135 140 145	
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150 155 160	
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165 170 175	
acc aag aac tat tcc tgt gaa gct aaa aac aac atc tcc aga gaa ata Thr Lys Asn Tyr Ser Cys Glu Ala Lys Asn Asn Ile Ser Arg Glu Ile	693
180 185 190	
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195 200 205	
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210 215 220 225	
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230 235 240	
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245 250 255	
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260 265	
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Thr Met Asp Val Ile Leu Lys Cys Thr Ile Lys Val Asp Pro Lys Asn		
35	40	45

Pro Thr Leu Gln Leu Phe Tyr Thr Phe Tyr Lys Asp Asn His Val Ile		
50	55	60

Gln Asp Arg Ser Pro His Ser Val Phe Ser Ala Glu Ala Lys Glu Glu			
65	70	75	80

Asn Ser Gly Leu Tyr Gln Cys Met Val Asp Thr Glu Asp Gly Leu Ile		
85	90	95

Gln Lys Lys Ser Gly Tyr Leu Asp Ile Gln Phe Trp Thr Pro Val Ser		
100	105	110

His Pro Val Leu Thr Leu Gln His Glu Ala Thr Asn Leu Ala Val Gly		
115	120	125

Asp Lys Val Glu Phe Leu Cys Glu Ala His Gln Gly Ser Leu Pro Ile		
130	135	140

Phe Tyr Ser Phe Tyr Ile Asn Gly Glu Ile Leu Gly Lys Pro Leu Ala			
145	150	155	160

Pro Ser Gly Arg Ala Ala Ser Leu Leu Ala Ser Val Lys Ala Glu Trp		
165	170	175

Ser Thr Lys Asn Tyr Ser Cys Glu Ala Lys Asn Asn Ile Ser Arg Glu		
180	185	190

Ile Ser Glu Leu Lys Lys Phe Pro Leu Val Val Ser Gly Thr Ala Trp
 195 200 205

Ile Lys Ser Asn Met Leu Thr Ile Trp Leu Pro Ala Ser Leu Leu Gly
 210 215 220

Gly Met Val Ile Ala Ala Val Val Leu Met Tyr Phe Phe Lys Pro Cys
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Lys Lys His Ala Arg Pro Glu Met Pro Thr Leu Lys Glu Pro Asp Ser
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